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ABSTRACT

This bibliography lists publications of the Institute for Computer Sciences and Technology of the National Bureau of Standards. Publications are listed by subject in the areas of computer security, computer networking, and automation technology. Sections list publications of: (1) current Federal Information Processing Standards; (2) computer science and technology in series--1975-77; (3) articles in journals and conference proceedings--1974-76; and (4) machine readable data files and computer software packages related to computer science and technology. Price and order information are included. (KP)

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COMPUTER SCIENCE AND TECHNOLOGY PUBLICATIONS

INSTITUTE FOR COMPUTER SCIENCES AND TECHNOLOGY
NATIONAL BUREAU OF STANDARDS
U. S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C. 20234

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INTRODUCTION

The Institute for Computer Sciences and Technology (ICST) of the National Bureau of Standards reports on its program activities such as computer security, computer networking and automation technology through its technical publications. ICST has responsibility for providing standards, guidelines and technical advisory services to improve the effective use of computers in the Federal Government and for performing the supporting research and development.

ICST publications are often of interest to local governments, private organizations, academic institutions and individuals as well as Federal computer users. This publication list includes the following materials available to the public:

Section I. Federal Information Processing Standards Publications (FIPS PUBS) currently in effect.

Section II. Computer science and technology publications in several NBS publication series -- Monographs, Handbooks, Special Publications, Technical Notes, interagency reports, and Government contract research reports -- and articles in Dimensions, the NBS monthly magazine. Publications for approximately the last three years are included and listed by subject area.

Section III. Computer science and technology papers and articles by NBS authors in non-NBS media, especially professional journals and conference proceedings. Citations are listed by subject and include papers published in 1974 through 1976.

Section IV. Machine readable data files and computer software packages (NBS/DF) related to computer science and technology. Citations are cross referenced to related publications.

Appendices A and B contain price and order information about publications. Order forms for the Superintendent of Documents and National Technical Information Service are included. If you would like to receive notices of future publications in computer science and technology, complete and return the appropriate form included in Appendix C.

A complete listing of NBS publications, including work in other disciplines, is contained in NBS Special Publication 305, Publications of the National Bureau of Standards, and its supplements. These documents are available from the Superintendent of Documents.

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SECTION I.

FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATIONS (FIPS PUBS)

The publications in this series comprise the automatic data processing standards and guidelines issued by the National Bureau of Standards for Federal Government computer users.

These publications are available from the National Technical Information Service (NTIS). See Appendix B for information about ordering documents from NTIS. Single paper copies are for sale at the domestic prices noted in the citations, postage and handling included. NTIS also offers FIPS PUBS on microfiche, comprehensive packages of FIPS PUBS in binders, FIPS PUB subscriptions (standing orders), and discounts on quantity orders. Call or write NTIS for price information on these items and for foreign rates on single paper copies.

FIPS PUB 0. "General Description of FIPS Register," Nov. 1, 1968, 8 pp., $3.50.

FIPS PUB 1. "Code for Information Interchange," Nov. 1, 1968, 4 pp., $3.50.

FIPS PUB 2. "Perforated Tape Code for Information Interchange," Nov. 1, 1968, $3.50.

FIPS PUB 3-1. "Recorded Magnetic Tape for Information Interchange (800 CPI, NRZI)," June 30, 1973, 4 pp., $3.50.

FIPS PUB 4. "Calendar Date," Nov. 1, 1968, 4 pp., $3.50.

FIPS PUB 5-1. "States and Outlying Areas of the U.S.," June 15, 1970, 4 pp., $3.50. (See also NBS/DF-73/003)

FIPS PUB 6-2. "Counties and County Equivalents of the States of the U.S.," Sept. 15, 1973, 35 pp., $4.00. (See also NBS/DF-74/001)

FIPS PUB 7. "Implementation of Code for Information Interchange," March 7, 1969, 14 pp., $3.50.

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FIPS PUB 9. "Congressional Districts of the U.S.," Nov. 14, 1969, 4 pp., $3.50.

FIPS PUB 10-2. "Countries, Dependencies and Areas of Special Sovereignty," 11/15/76, 30 pp., $4.00. (See also NBS/DF-74/CC2)

FIPS PUB 11. "Vocabulary for Information Processing," Nov. 15, 1971, 4 pp., $6.00.

FIPS PUB 12-2. "Federal Information Processing Standards Index," Dec. 1, 1974, 195 pp., $7.50.

FIPS PUB 13. "Rectangular Holes in 12-Row Punched Cards," Oct. 1, 1971, 4 pp., $3.50.

FIPS PUB 14. "Hollerith Punched Card Code," Oct. 1, 1971, 4 pp., $3.50.

FIPS PUB 15. "Subsets of Standard Code for Information Interchange," Oct. 1, 1971, 10 pp., $3.50.

FIPS PUB 16. "Bit Sequencing of Code for Information Interchange in Serial-By-Bit Data Transmission," Oct. 1, 1972, 4 pp., $3.50.

FIPS PUB 17. "Character Structure and Character Parity Sense for Serial-By-Bit Data Communication in Code for Information Interchange," Oct. 1, 1972, 4 pp., $3.50.

FIPS PUB 18. "Character Structure and Character Parity Sense for Parallel-By-Bit Data Communication in Code for Information Interchange," Oct. 1, 1972, 4 pp., $3.50.

FIPS PUB 19. "Guidelines for Registering Data Codes," Feb. 1, 1972, 4 pp., $3.50.

FIPS PUB 20. "Guidelines for Describing Information Interchange Formats," March 1, 1972, 11 pp., $3.50.

FIPS PUB 21-1. "COBOL," Dec. 1, 1975, 5 pp., $13.50.

FIPS PUB 22. "Synchronous Signaling Rates Between Data Terminal and Data Communication Equipment," Nov. 1, 1972, 4 pp., $3.50.

FIPS PUB 23. "Objectives and Requirements," Feb. 15, 1973, 8 pp., $3.50.

FIPS PUB 24. "Flowchart Symbols and Their Usage in Information Processing," June 30, 1973, 4 pp., $4.00.

FIPS PUB 25. "Recorded Magnetic Tape for Information Interchange (1600 CPI, PE)," June 30, 1973, 4 pp., $3.50.

FIPS PUB 26. "One-Inch Perforated Paper Tape for Information Interchange," June 30, 1973, 4 pp., $3.50.

FIPS PUB 27. "Take-up Reels for One-Inch Perforated Tape," June 30, 1973, 4 pp., $3.50.

FIPS PUB 28. "Standardization of Data Elements and Representations," Dec. 5, 1973, 12 pp., $3.50.

FIPS PUB 29. "Interpretation Procedures for Federal Standard COBOL," June 30, 1974, 4 pp., $3.50.

FIPS PUB 30. "Software Summary for Describing Computer Programs and Data Systems," June 30, 1974, 5 pp., $3.50.

FIPS PUB 31. "Guidelines for ADP Physical Security and Risk Management," June 1974, 92 pp., $5.00.

FIPS PUB 32. "Optical Character Recognition Character Sets," Aug. 15, 1974, 78 pp., $5.00.

FIPS PUB 33. "Character Set for Handprinting," Oct. 1, 1974, 4 pp., $4.00.

FIPS PUB 34. "Guide for Use of International System of Units (SI) in Federal Information Processing Standards Publications," Jan. 1, 1975, 4 pp., $3.50.

FIPS PUB 35. "Code Extension Techniques in 7 or 8 Bits," June 1, 1975, 4 pp., $4.00.

FIPS PUB 36. "Graphic Representation of Control Characters of ASCII," June 1, 1975, 4 pp., $3.50.

FIPS PUB 37. "Synchronous High Speed Data Signaling Rates Between Data Terminal Equipment and Data Communications Equipment," June 30, 1975, 4 pp., $3.50.

FIPS PUB 38. "Guidelines for Documentation of Computer Programs and Automated Data Systems," Feb. 15, 1976, $4.50.

FIPS PUB 39. "Glossary for Computer Systems Security," Feb. 1, 1976, $3.50.

FIPS PUB 40. "Guidelines for Optical Character Recognition Forms," May 1, 1976, $4.50.

FIPS PUB 41. "Computer Security Guidelines for Implementing Privacy Act of 1974," May 30, 1975, 20 pp., $3.50.

FIPS PUB 42. "Guidelines for Benchmarking ADP Systems in Competitive Procurement Environment," Dec. 15, 1975, 8 pp., $3.50.

FIPS PUB 43. "Aids for Program COBOL Conversion (FIPS 21--21-1)," Dec. 1, 1975, 54 pp., $4.50.

FIPS PUB 44. "COBOL Coding Form," Sept. 1, 1976, 3 pp., $3.50.

FIPS PUB 45. "Guide for the Development, Implementation and Maintenance of Standards for the Representation of Computer Processed Data Elements," Sept. 30, 1976, 47 pp., $4.00.

FIPS PUB 46. "Data Encryption Standard," Jan. 15, 1977, 18 pp., $3.50.

FIPS PUB 47. "Federal Standard COBOL Pocket Guide," Feb. 1, 1977, 32 pp., $4.00.

FIPS PUB 48. "Guideline on Evaluation of Techniques for Automated Personal Identification," (in publication).

SECTION II

COMPUTER SCIENCE AND TECHNOLOGY PUBLICATIONS IN NBS TECHNICAL SERIES

Included in this section are Monographs, Handbooks, Special Publications, Technical Notes, interagency reports, and Government contract research reports. Most of these publications are available from the Superindendent of Documents (SD). Paper and microfiche copies of many of these publications are also available from the National Technical Information Service (NTIS). Appendix A contains the SD and NTIS catalog numbers and prices listed by the NBS publication number noted in each citation (e.g., Tech. Note 500). See Appendix B for detailed information about ordering.

This section also contains citations for computer science and technology articles appearing in Dimensions (DIM/NBS), the NBS monthly magazine that reports on NBS science and technology activities. Dimensions is available from the Superintendent of Documents at an annual subscription price of $12.50 ($15.65 foreign) and $1.05 for a single copy. You may use the order form in Appendix C.

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Cotton, I. W., "Cost-benefit analysis of computer graphics systems," Tech. Note 826, Apr. 1974, 47 pp.

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Duncan, B. C. and Garvin, D., "Complete clear text representation of scientific documents in machine-readable form," Tech. Note 820, Feb. 1974, 55 pp.

Messina, C. G. and Hilsenrath, J., "Edit-insertion programs for automatic typesetting of computer printout," Tech. Note 500, Apr. 1970. (See also NBS/DF-73/001)

Wolcott, N. M. and Hilsenrath, J., A" contribution to computer typesetting techniques: Tables of coordinates for Hershey's repertory of occidental type fonts and graphic symbols," Apr. 1976, 173 pp. (See also NBS/DF 77/001 and 77/002.)

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Saltman, R. G., "Effective use of computing technology in vote-tallying," NBSIR 75-687, Mar. 1975, 140 pp.

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Wegstein, J. H., "The M40 fingerprint matcher," Tech. Note 878, July 1975, 14 pp.

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Hogben, D., Peavy, S. T., and Varner, R. N., "OMNITAB II user's reference manual," Tech. Note 552, Oct. 1971, 254 pp. (See also NBS/DF-73/002)

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See FIPS PUBS 1, 2, 3-1, 7, 14, 15, 25, 26, 32, 33, 35, 36, and 40.

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SECTION III

COMPUTER SCIENCE AND TECHNOLOGY PAPERS BY NBS AUTHORS IN NON-NBS MEDIA

This section lists significant papers and articles by ICST authors that are published in other journals. These articles are not sold by the Government. However, the publications in which they appear may be consulted in most technical libraries, and reprints sometimes may be obtained from individual authors.

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SECTION IV

MACHINE READABLE DATA FILES (NBS/DF) AND COMPUTER SOFTWARE

These items, with the exceptions noted below, are distributed on magnetic tape by the National Technical Information Service. NBS/DF-73/003 is distributed on punch cards. NBS/DF-74/004 is available from the National Bureau of Standards on tape. (See details for ordering with citation.)

See Appendix B for ordering from NTIS. Orders for machine readable data files and computer software should specify:

Order Number listed with citation

Character Code - ASCII, EBEDIC, or BCD

Density - 556, 800, or 1600 bpi

Parity - odd or even.

Not all character codes and densities are available for all items. Call or write NTIS for information.

NBS/DF-73/001. NBS Magnetic Tape 2. FORTRAN Programs for Text Editing, File Manipulating, and Automatic Typesetting. Reference NBS TN's 444, 470, 500, 700. (COM-73-10626/2CP). Price $250.

NBS/DF-73/002. NBS MAGNETIC TAPE 1. OMNITAB 2 Magnetic Tape and Documentation Parcel. Reference NBS TN's 55[illegible] and 756 and NBS-SP-339. (PB-195 150/8CP). Price $250.

NBS/DF-73/003. FIPS PUB 5-1C. Punch cards containing standard abbreviations and codes for states and outlying areas of the United States. (PB-190 719/5CP). Price $97.50.

NBS/DF-74/001. FIPS PUB 6-2 T. The standard abbreviations and codes for the counties and county equivalents of the states of the United States. (COM-74-11289/7CP). Price $97.50.

NBS/DF-74/002. FIPS PUB 10-2 C. The standard codes for countries, dependencies and areas of special sovereignty. (COM-74-11290/5CP). Price $97.50.

NBS/DF-74/003. FIPS PUB 8-4 T. The standard titles, definitions and codes of the standard metropolitan statistical areas. (COM-74-11291/3CP). Price $97.50.

NBS/DF-74/004. Computer Program Package for Metric Conversion. Reference NBS TN 872. Order by writing Conversion Package, Rm. B-311, Chemistry Bldg., NBS, Washington, D. C. 20234 or phone 301-921-2045. Price $500.

NBS/DF-74/006. NBS FORTRAN Test Programs. Reference NBS SP-399, Vols. 1, 2, 3. (COM-75-10182/4CP). Price $400.

COM/DF-74/006. A FORTRAN Analyzer. Reference NBS TN-849. (COM-75-10044). Price $200.00

NBS/DF-76/003. Computer Model to Determine Low Cost Techniques to Comply with the Privacy Act of 1974. Reference NBSIR 76-985. (PB-250 754). Price $150.00

NBS/DF-77/001 7-track BCD. NBS/DF-77/002 9-track ASCII. NBS MAGNETIC Tape 12. Tables of Coordinates for Hershey's Repertory of Type Fonts and Graphic Symbols, Jan. 1977. Reference NBS SP-424. Order from NTIS, Price $250.